

WHAT IS CLAIMED IS:

1. A computer-implemented method of analyzing browse activity data of users of a database access system, the method comprising:

providing a browse tree in which items represented within a database are arranged within item categories over multiple levels of item categories;

assigning individual user history scores to specific categories of the browse tree based at least in-part on an item selection history of a user, wherein the individual user history scores represent the user's predicted affinities for the corresponding item categories;

assigning collective user history scores to specific categories of the browse tree based at least in-part on item selection histories of a population of users, wherein the collective user history scores represent the predicted affinities of the user population for the corresponding item categories; and

evaluating differences between the individual user history scores and the collective user history scores to generate a relative preference profile for the user, wherein the relative preference profile comprises relative preference scores for specific item categories, said relative preference scores reflecting a degree to which the user's predicted affinity for a category differs from the predicted affinity of the user population for that category.

2. The method of Claim 1, wherein assigning individual user history scores to specific categories comprises:

(a) determining an amount of credit to be distributed for an item selection event in which the user selected an item; and

(b) distributing said amount of credit among the item categories under which the item falls, including item categories at multiple levels of the browse tree.

3. The method of Claim 2, further comprising repeating (a) and (b) for each of a plurality of selection events while summing credit values assigned to like item categories.

4. The method of Claim 1, wherein evaluating differences between the individual user history scores and the collective user history scores comprises calculating at least one of

a relative entropy function, a dot product function, or a sum of squares function of the individual user history scores relative to the collective user history scores.

5. The method of Claim 1, further comprising providing personalized item recommendations to the user based at least in-part on the relative preference profile.

6. The method of Claim 1, further comprising providing personalized category recommendations to the user based at least in-part on the relative preference profile.

7. The method of Claim 1, wherein the item selection history of the user comprises a history of items selected for downloading.

8. The method of Claim 1, wherein the item selection history is based solely on the user's selections of items during browsing of the browse tree.

9. The method of Claim 1, further comprising incrementally updating the relative preference profile of the user in response to new item selection events of the user.

10. The method of Claim 9, wherein the relative preference profile is updated substantially in real-time as the user interacts with the browse tree.

11. A method of distributing credit for a selection event among the nodes of a browse tree, the method comprising:

determining a total amount of credit to be distributed for the selection event in which a user selected an item within the browse tree;

identifying each ancestor node of the selected item within the browse tree;

dividing said total amount of credit by the number of ancestor nodes of the selected item to determine an amount of credit per ancestor to be distributed for the selection event; and

assigning said amount of credit per ancestor to the ancestor nodes of the selected item within the browse tree.

12. The method of Claim 11, wherein said total amount of credit is the same for all selection events.

13. The method of Claim 11, wherein said total amount of credit varies based on the nature of the selection event.

14. The method of Claim 11, wherein the selection event comprises viewing an item and said total amount of credit varies based on the amount of time spent viewing the item.

15. A database access system comprising:

a server system coupled to a communications network, said server system providing access to a browse tree in which items represented within a database are arranged within a hierarchy of item categories over multiple levels of item categories, said server system configured to maintain item selection histories for each user within a population of users;

an analysis module which analyzes at least the item selection histories to predict user affinities for specific item categories of the browse tree, wherein the analysis module additionally generates a relative preference profile for a given user by calculating differences between the user's predicted affinities for specific item categories of the browse tree and the population's predicted affinities for said item categories; and

a recommendation module coupled to the server system and configured to access the relative preference profile of the user to make personalized recommendations to the user based at least in-part on the relative preference profile.

16. The system of Claim 15, wherein the analysis module calculates the user's predicted affinities for the specific item categories based at least in-part by distributing an amount of credit associated with an item selection event among a plurality of item categories under which the selected item falls within the browse tree.